

EXPLANATION OF PLATE XVIII. figs. 3-5.

Fig. 3. *Diastylis bimarginatus*.

Fig. 4. The same, dorsal view.

Fig. 5. Fragments of legs of same: 1, part of first leg; 2, part of second leg; and so on to 5, which is the last.

NOTE.

Since the above was placed in the hands of the printer, I have seen, in the 'Annals' for Nov., a reference made by the Rev. A. M. Norman to the species above referred to, in which he says that *Diastylis bimarginatus* is identical with *D. spinosa*, a species described by him in the British-Association Report for 1868. This he considers must be the case from the similarity of the description given by him and that of my species as given by Mr. Bate in the May number of the 'Annals;' but then it will be seen from the foregoing that Mr. Bate's remarks do not describe the species I sent him.

LI.—*Descriptions of some new Genera and Species of Lepidoptera from Old Calabar and Madagascar.* By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

IN the collections from which the novelties here recorded were selected were the following interesting described species:—

MADAGASCAR.

Nephele Densoi, *Kef.*

Cherocampa geryon, *Boisd.*

Eusemia zea, *H.-Sch.*

(*N. gen.*) *crocipes*, *Boisd.*

Bunæa aslauga, *Kirb.*

— *eblis*, *Streck.*

Phragmatœcia arundinis (European species).

Cylogramma fluctuosa, *Guén.*

Cylogramma duplex, *Guén.*

— *conturbans*, *Walk.*

— *joa*, *Boisd.*

OLD CALABAR.

Phægorista similis, *Walk.*

Brahmæa Swanzii, *Butl.*

Ophideres cocalus, *Cram.* (Indian species).

C. conturbans is described from an example said to have been taken in Hindostan.

Nephele bipartita, n. sp.

Primaries divided into two equal areas by an oblique black belt from the centre of the costa to the external angle; the basal area sordid testaceous, clouded with fuliginous, reddish at base of costal border; three zigzag, parallel, abbreviated, black lines across the cell, the area enclosed by the two outer lines dusky; three slightly irregular, indistinct, blackish lines

across the inferior portion of the disk near the external angle ; a minute white dot at the end of the cell ; apical area dark chocolate-brown, blotched with subcostal and submarginal squamose testaceous patches : secondaries olivaceous, becoming reddish beyond the middle, and with a broad, tapering, blackish border ; costal area greyish ; fringe pale reddish brown, white towards the anal angle : body sordid clay-coloured, clouded with olivaceous, the abdomen crossed by black belts, which widen abruptly at the sides. Under surface rusty reddish brown, palpi whitish ; wings with broad, dusky outer border, and three parallel discal sinuous lines, the central line least distinct ; primaries with dusky basal area and whitish inner border ; secondaries rather paler than the primaries ; venter with lateral black stigmata. Expanse of wings 3 inches 6 lines.

Old Calabar.

Caryatis syntomina, n. sp.

Primaries fuliginous brown, with the veins on the basal area whitish ; a vermilion basal spot, on which are three small black spots ; an oblique, subapical, white belt separated by the nervures into six parts : secondaries white, sordid below the median vein ; the veins beyond the middle, a discocellular spot, the apex and outer margin dark fuliginous brown : head, collar, and thorax red, spotted with black ; abdomen and under surface of body ochreous ; legs below, excepting the tarsi, with white borders : wings as above. Expanse of wings 1 inch 11 lines.

Old Calabar.

The genus *Caryatis* has usually been referred to the *Hypsinae* ; it is, however, nearly allied to *Pelochyta*. *Zaracha extranea*, Wlk., is probably a third species of *Caryatis*.

Areas virginalis, n. sp.

Pearly white ; primaries speckled with brown, and with a brown crescent at the end of the cell ; secondaries speckled with brown beyond the cell, and with a brown spot at the end of the cell ; head orange, with the frons and antennæ black ; abdomen orange, with a dorsal series of six transverse black spots, followed by a broad black belt near the anus : body below white ; the femora above, the palpi, and collar orange ; the knees and upperside of the tibiæ and tarsi black ; venter with a lateral series of black dots. Expanse of wings, ♂ 2 inches, ♀ 2 inches 7 lines.

Betsileo country, Madagascar.

DAPHNENURA, n. gen.

Allied to *Eucharis* (*E. Hebe*, Linn); but the primaries with more elongated costal margin, more convex outer margin, shorter inner margin, the secondaries comparatively smaller, with the discocellular veinlets more transverse, and the radial emitted from the discocellulars at some distance from the third median branch; antennæ with very short pectinations, even in the male, the head rather more prominent, the thorax narrower, the abdomen of the male with a well-defined terminal bushy tuft of hairs. Type *D. fasciata*.

Daphnœnura fasciata, n. sp.

Primaries above rich golden orange, the base, a broad sub-basal transverse belt, two transverse stripes before the middle, an irregular spot at the end of the cell, a sinuous discal stripe, and the outer border black: secondaries bright ochreous, with the abdominal and external borders black: head, thorax, and anus carmine; abdomen black; antennæ black. Wings below bright ochreous, with black outer border, base black: primaries with two spots near the middle of the costal border, a crescent at the end of the cell, and an angular discal belt black: body below black, with the anus carmine. Expanse of wings, ♂ 2 inches 3 lines, ♀ 2 inches 2 lines.

Ellongo, Madagascar.

This splendid moth seems to be not uncommon at Ellongo; the collection contained five or six examples.

Sozuza argentea, n. sp.

Silvery white, primaries with three black spots arranged in the form of a triangle, the first subcostal, the second on the second median interspace, the third (at basal third) upon the interno-median area; front of head, lower part of palpi, upper surface of anterior legs, knees and upper surface of tarsi of the remaining legs black; antennæ and upper surface of abdomen greyish; anus below tinted with ochreous. Expanse of wings 1 inch 7 lines.

Ellongo, Madagascar.

I find that I was wrong in rejecting Wallengren's genus *Sozuza*; the neuration of the primaries at once characterizes it. The following described species are referable to this genus:—*Lithosia marginata*, Guén., from Madagascar; *L. Kingdoni*, Butl., from Madagascar; and *L. pygmaea*, Walk., from South Africa. *L. cephalica*, from America, differs entirely in the neuration of the primaries, although very similar in general form and appearance.

Chærotriche mirifica, n. sp.

Primaries bright sulphur-yellow, covered with large dark-orange spots, which upon the disk form an irregular oblique series in which all the spots are of a quadrate form; veins and margins also orange; two plumbaginous belts formed of oval connected spots, one near the base, the other just beyond the middle: secondaries bright ochreous, with the costal area and apex broadly bright sulphur-yellow spotted with orange; an ill-defined orange belt from the abdominal margin to the fourth median, where it (indistinctly) joins a large subapical orange spot; apical margin orange: thorax and base of abdomen deep reddish orange, almost red; remainder of abdomen ochreous. Under surface altogether of a more golden or saffron-yellow tint, the orange spots less red, the plumbaginous belts obsolete. Expanse of wings 3 inches.

Old Calabar.

This is by far the most beautiful species in the genus, if not in the family. The genus *Chærotriche* contains the following species known to me:—*C. crocea*, Wlk.; *C. plana*, Wlk.; *C. atomaria*, Wlk.; *C. plagiata*, Wlk.; *C. Edwardsii*, Newm.; *C. darsa*, Moore; *C. comparata*, Wlk.; *C. discinota*, Moore. Also, probably, *C. vitellina*, Koll.; *C. varia*, Wlk.; *C. distincta*, Feld.; *C. conspersa*, Feld.; *C. globifera*, Feld.

HELICOMITRA, n. gen.

Allied to *Pterothysanus*; wings with similar neuration, but broader, with different style of marking; the basal half of the wings covered more or less densely with upright hairs, some of which are curiously thickened above the middle (like bulrushes); a radiating tuft of fine hairs at the base of the abdominal margin; abdominal fringe rather long, but not extending quite to the anal angle: body much more robust than in *Pterothysanus*. Type *H. pulchra*.

Helicomitra pulchra, n. sp.

Snowy white; wings crossed by four series of annular black markings, the third and fourth being near together on the externo-discal area, the spots of the third series more or less lunate; a marginal series of partially black-edged ochreous spots: primaries with the base black-spotted; a black annulus in the cell; two large black costal patches; the basal half of costal margin vermilion-red; three partially black-edged vermilion costal spots between the cell and apex; apical area greyish: head black in front, with a white margin, white be-

hind with a central black spot; collar tinted behind with ochreous, black-spotted at the sides; an orange humeral spot on each side; base of tegulæ black; thorax with a large black dorsal spot divided by a central white line, two black spots behind; abdomen with two dorsal series of transverse black spots, sides orange with white edges to the segments. Under surface white, markings obsolete excepting at the borders of the wings; primaries with a large apical black patch; venter yellowish, with ill-defined transverse dusky belts and a series of black spots on each side; legs above brown, the tarsi black with white belts; anterior coxæ orange, femora of second pair of legs vermilion below. Expanse of wings 3 inches 3 lines.

Betsileo country, Madagascar.

In marking this singular species reminds one of the genus *Epantheria*.

Gogane ochrea, n. sp.

Primaries above bright ochreous, the fringe sericeous; secondaries rather paler than the primaries, sericeous all over; body ochreous, the thorax paler than the head, collar, and abdomen; anal tuft greyish brown: under surface ochreous, sericeous, uniform in tint. Expanse of wings 2 inches.

Madagascar.

This species, from the similarity of its general coloration, reminds one of the "*Aganais insularis*" of Boisduval.

The genus *Gogane* is nearly allied to *Chærotriche*, and contains, besides the above, *G. atosquama* of Walker and *G. glandulosa* of Felder.

Anaphe venata, n. sp.

Wings cream-coloured: primaries with the veins, margins, and a central belt bright chocolate-coloured; secondaries with the apical fringe slightly brownish, bright chocolate dots at the ends of the veins: head, inner fringe of tegulæ, and thorax red-brown, collar and outer border of tegulæ cream-coloured; abdomen pale red-brown, the segments whitish in front; antennæ black: under surface with the markings less distinct than above. Expanse of wings 2 inches 3 lines.

Old Calabar.

Readily distinguished from the described species by the single red-brown belt and the red-brown veins of the primaries. In *A. reticulata*, *A. panda*, and *A. ambrizia* there are two belts and two longitudinal streaks (limiting the median interspaces), and the brown borders are much wider than in *A. venata*.

Dasychira ampliata, n. sp.

♀. White: primaries finely speckled with smoky brown, and crossed by two irregular lunulated belts, the inner one edged with more numerous brown scales, the outer one blackish internally and with a squamose greyish external border; an ill-defined submarginal greyish squamose belt followed by a slightly undulated black line; a slender grey marginal line: secondaries suffused with pale smoky brown, excepting upon the costal area: abdomen greyish; antennæ with reddish-brown pectinations. Under surface white, the wings, particularly the primaries, clouded with very pale greyish brown, the veins brownish. Expanse of wings 3 inches 7 lines.

Ellongo, Madagascar.

This species, in every thing but its antennæ and neuration, bears a remarkable resemblance to *Lobeza aglone*, H.-Sch., from Rio Janeiro; the likeness is as great as in any recorded case of protective assimilation.

The egg of *D. ampliata* is very large, subglobose, smooth, the upper half being coloured with alternate concentric circles of olivaceous and whitish, the lower half snow-white.

SPIDIA, n. gen.

Allied to *Drepana*, neuration similar: primaries much broader, the outer margin deeply excavated below the apex and regularly convex from the sinus to the external angle, considerably less oblique; inner margin much longer: secondaries with the outer margin almost straight, so that the anal angle is much more acute. Type *S. fenestrata*.

Spidia fenestrata, n. sp.

Coloration and aspect of *Drepana scabiosa*, excepting in size and form. Brownish grey, with a pearly lustre; wings divided into two areas by an oblique blackish stripe from the apex of the primaries to the basal third of the abdominal margin of secondaries, the area beyond the stripe darker than the basicostal area: primaries with a hyaline white spot at the end of the cell, and four smaller hyaline spots half encircling it externally: secondaries with an abbreviated blackish stripe across the apical third of the abdominal area: body blackish. Under surface pale silvery greyish brown, speckled with black; hyaline spots as above. Expanse of wings 1 inch 9 lines.

Old Calabar.

Copaxa discrepans, n. sp.

♂. Bright chrome-yellow, wings with a black spot enclosing a hyaline white centre at the termination of each discoidal cell; fringe red-brown: primaries sprinkled here and there, particularly at the base, with rusty scales; a very irregular red-brown stripe across the basal third; a second, less irregular central stripe, a third almost straight oblique discal stripe from apex to inner margin; a submarginal series of more or less concave red-brown spots: secondaries crossed in the middle by a rather broad, straight, red-brown stripe, and on the disk by a zigzag line; a submarginal series of more or less hastate red-brown spots: body sprinkled with rusty scales. Under surface darker; the stripes, lines, and spots purplish; the ocelloid spots smaller; the whole surface of the wings sprinkled more or less densely with rust-brown scales, most thickly upon the outer border and between the stripes of primaries, the stripe nearest to the base being obsolete. Expanse of wings 5 inches 11 lines.

♀. Olive-brown, sprinkled with yellow scales, most densely between the outer or discal stripe and the submarginal row of spots; ocelli larger than in the male; otherwise the characters are the same. Expanse of wings 5 inches 6 lines.

Old Calabar.

CERANCHIA, n. gen.

Nearly allied to *Saturnia*, but the antennæ broadly and equally pectinated in both sexes, the wings hyaline, the radial vein of primaries emitted in the male (but not in the female) from the fourth subcostal branch, with which it forms a fork starting from an apparently independent footstalk at the superior angle of the discoidal cell. Type *C. apollina*.

Ceranchia apollina, n. sp.

White; wings hyaline, with pale smoky-brown borders and dusky veins; an arched postmedian grey stripe; a black-zoned orange spot at the end of each discoidal cell, those of the primaries in the male very pale; primaries of the female with an ill-defined dusky stripe across the cell to inner margin; antennæ black; head, prothorax, and legs tawny. Expanse of wings 4 inches 6-9 lines.

Betsileo country, Madagascar.

It was only after examining four or five examples of this species that I was finally persuaded that the structural difference in the veins of the primaries was a male character, whilst

the antennæ of the sexes did not differ : the cocoon is reticulate and silvery.

GONIMBRASIA, n. gen.

Allied to *Imbrasia*, but the antennæ of the males pectinated to the apex, the outer margin of the primaries usually straighter, the outer margin of the secondaries obtusely subangulated, not caudate. Type *G. nictitans*.

To this genus may also be referred *Imbrasia rhodophila* and *I. alopia*.

Gonimbrasia obscura, n. sp.

Primaries dull reddish brown, ferruginous towards the base, clouded with fuliginous at and beyond the end of the cell, speckled with grey upon the external area ; a dusky interrupted zigzag transverse streak, broadly bordered externally by a diffused pink belt, limiting the basal area, a nearly semi-circular hyaline white spot at the end of the cell ; an oblique diffused dusky stripe, from costa to inner margin, immediately beyond the hyaline spot ; a dark brown oblique discal stripe, parallel to the outer margin, bordered on both sides by pink stripes, the outer one irregularly sinuated, both diffused and expanded at the costa, so as to form a broad costal patch : secondaries olive-brown, becoming fuliginous towards the centre of the wing ; abdominal border reddish ; base rosy ; two divergent white stripes from the abdominal border to the subcostal vein, the outer one obtusely subangulated and bounded externally by a narrow blackish stripe ; a large central ocellus touching the outer stripe gravel-yellow, with semi-circular hyaline white centre, black iris, dull lake-red margin, and pink border ; disk from the abdominal margin to the radial (or third subcostal) branch traversed by a pinky-white zigzag squamose stripe : body clay-coloured, becoming ferruginous towards the head, posterior border of thorax pink. Wings below altogether paler, broadly tinted with pink, the stripe nearest to the base of primaries obsolete, the stripe at the end of the cell very broad and diffused ; two dusky discal stripes, beyond which is a broad zigzag pink stripe : secondaries with an ill-defined dusky stripe beyond the black stripe ; ocellus reduced to a hyaline spot with fulvous margin ; zigzag discal stripe continued to the first subcostal branch : body clay-coloured, uniform in tint. Expanse of wings 5 inches.

Old Calabar.

This genus is most nearly allied to *Buncea* both in pattern and structure, but differs in its shorter antennæ and more angular secondaries.

Attacus perspicuus, n. sp.

Size and general coloration of *A. vacuna*, the discal white belt similar in position and form, but the area beyond this belt broadly sprinkled with snow-white scales; the ocelloid hyaline patch of primaries as in *A. mythimna*, and that of the secondaries subquadrate and very large; the outer border of primaries pale olive-brown, traversed internally by a deeply and regularly crinkled black line, with longitudinal black dashes internally between the sinuations, much as in *A. atbarinus*; outer border of secondaries intermediate in colour and spotting between *A. vacuna* and *A. mythimna*; basal white belts as in *A. vacuna*, but whiter and sharply defined; pectus white. Wings below differing from *A. vacuna* as upon the upper surface. Expanse of wings 5 inches 4 lines.

Old Calabar.

STIBOLEPIS, n. gen.

Aspect of *Melanothrix**, but neuration of *Sarmalia*, excepting that the discoidal cells are half as long again. Type *S. nivea*.

Stibolepis nivea, n. sp.

♂. Snowy white; wings with black external borders traversed by a deeply dentate-sinuate white line; fringe alternately black and white: primaries with a series of black spots, interrupted on the median interspaces, close to the external border; costal border crossed by black dashes, the four nearest the base continued, as grey and ill-defined stripes, across the wing: secondaries with a subcostal black dash close to the external border: head fulvous in front, black behind; antennæ dark brown; thorax with a longitudinal central black line; tegulæ crossed by black humeral stripes; abdomen fulvous. Wings below white, the veins yellowish; a dentate-sinuate black outer border; fringe black, spotted with white: primaries with the base of costal border and the costal margin black: body ochreous, abdomen with a series of black dots on each side. Expanse of wings 2 inches 11 lines.

Old Calabar.

This genus and the other two with which I have compared it will come into the Bombycidæ, in the neighbourhood of *Jana*.

Zenzera cretacea, n. sp.

♂. Intermediate in colouring and marking between *Z.*

* *Melanothrix pulchricolor* is identical with *Gnophos? nymphaliaria* of Walker.

asylas and *Z. capensis*, but differing from both in that the primaries have a longitudinal black costal stripe beyond the cell, and a white streak followed by an oblong black spot on the interno-median area: primaries with the costal two thirds chalky white, crossed by black striations, and with a black semicircular streak at outer margin, internal area broadly greyish brown: secondaries greyish brown, with dark grey reticulations; costal area white, a dusky-bordered convex sordid-white external patch: head yellow in front, deep grey behind; antennæ black; collar black; thorax brown, with snow-white tegulæ; abdomen above white, crossed by grey belts, which become black at the sides. Under surface paler, altogether more uniform in colouring; the costal and interno-median black dashes of primaries obsolete; pectus blackish. Expanse of wings 3 inches 2 lines.

Ellongo, Madagascar.

Achæa sypnoides, n. sp.

Basal area laky brown, veins grey; a basicostal black annulus with a black dash beneath it; central area occupied by a very broad irregular white band, unequally undulated internally and limited by a black zigzag line externally; a very irregular olivaceous central marking, two black dots at the end of the cell; an angulated dentate-sinuate olivaceous line nearly parallel to the outer border of the central band, which is also broadly olivaceous; inferior half of external area sordid whitish, traversed by brown-bordered white lunules; apical half purplish brown internally, rather narrowly and very irregularly pale brown externally; a sinuated black marginal line: secondaries pale greyish brown, with a broad, diffused, tapering, darker belt; outer border greyish, varied with white; a sinuated black marginal line: body pale sericeous brown. Under surface whity brown, with a paler, almost white postmedian belt, limited internally by a grey, and externally by a blackish stripe; disk dark smoky brown, outer border greyish with black marginal spots: secondaries with a dusky discocellular spot. Expanse of wings 2 inches 7 lines.

Old Calabar.

Nearest to *A. intercisa*, but altogether larger and different in colouring; it has some resemblance to *Sypna picta*.

Eumelea stellata, n. sp.

Stramineous, wings mottled with ferruginous, with two ill-defined oblique central lines and a marginal line dark ferruginous; three unequal clear patches or spots beyond the

middle in a transverse series; apex and a patch upon the outer margin sparsely mottled with ferruginous; fringe stramineous, spotted with brown at the ends of the veins; a slightly irregular discal series of brown-edged silvery spots; a blackish discocellular spot: secondaries with a clear, transversely elliptical patch just beyond the middle of the subcostal area; apex and some spots on the outer border sparsely speckled with ferruginous; fringe and silvery discal spots as in the primaries: body pale. Under surface of wings pale ochraceous, the mottling ill-defined, excepting upon the external third of the wings; pale patches as above; silvery spots obsolete; all the wings with blackish discocellular spots: body whitish. Expanse of wings 1 inch 11 lines.

Old Calabar.

E. stellata comes nearest to *E. ludovicata* (a common Malayan form), the pattern of the under surface being somewhat similar; it, however, bears a greater resemblance, in the colour and pattern of the upper surface, to the little genus *Stegania*.

Ophthalmodes squalida, n. sp.

Wings pale greyish testaceous, clouded with pale olivaceous and densely mottled with dark brown; the usual discoidal spots outlined in brown; a marginal series of black spots; two very ill-defined, parallel, sinuated, discal brownish lines; fringe and the costa of primaries testaceous, spotted with black: body pale brown, mottled with darker brown. Wings below with the basal two thirds sordid white, mottled with grey; discoidal spots dusky; external third fuliginous brown; fringes as above: primaries with a dusky line beyond the cell; costa yellowish, spotted with grey; apex and a spot on external border white: secondaries with a white apical spot: body very pale greyish brown. Expanse of wings 2 inches 3 lines.

Old Calabar.

LII.—*Additions to the Crustacean Fauna of New Zealand.*

By T. W. KIRK, Assistant, Colonial Museum, Wellington, N. Z.

Caprella lobata.

A single specimen of this species dredged in Cook Strait in January 1876.

Caprella novæ-zealandiæ, sp. nov.

Cephalon furnished with a spinous tooth directed forwards.
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